

**Remarks**

Applicant has amended claims 1, 2, 7, 18-22, 25-27 and 31. Applicant respectfully submits that no new matter was added by the amendment, as all of the amended matter was either previously illustrated or described in the drawings, written specification and/or claims of the present application. Entry of the amendment and favorable consideration thereof is earnestly requested.

The Examiner has rejected claims 1-7 and 11-18 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,089,551 to Haviland et al. ("the '551 patent") in view of U.S. Patent No. 6,669,217 to Sorum et al. ("the '217 patent") or U.S. Published Patent Application No. 2002/0096840 to Sulzyc et al. ("the '840 application"). The Examiner has further rejected claims 8-10 under 35 U.S.C. §103(a) as being unpatentable over the '551 patent in view of the '217 patent or the '840 application and U.S. Patent No. 5,159,554 to Buma et al. ("the '554 patent") or U.S. Patent No. 5,430,647 to Raad et al. ("the '647 patent"). These rejections are respectfully traversed.

**35 USC 103 Rejections**

Claims 1 and 14 require among other elements an air restriction valve fluidly coupled between a height control valve and an air spring, the air restriction valve operable to selectively open and close communication between the height control valve and said air spring, and different control signals for controlling the height control valve and the air restriction valve, such that air losses in the air suspension control system are minimized. Alternatively, claim 8 requires among other steps generating a correction signal, generating a control signal that is different from the correction signal and actuating a restriction valve with the control signal to selectively interrupt operation of the height control to increase ride stability of the vehicle. Finally, claim 11 requires among other elements generating a first control input, generating a second control input that is

based on a different parameter than the first control input, and actuating the air restriction valve according to the second control input in order to prevent loss of pressurized air in the air suspension control system during operation of the vehicle. Applicant respectfully submits that none of these elements are taught or disclosed in the cited references.

The Examiner has submitted that the '217 patent teaches that it is known to integrate an air restriction valve into a valving system citing the '217 patent at Col. 7, lines 31-50. (Official Action p. 3, lines 1-3). Applicant respectfully disagrees. The '217 patent teaches use of a two-way valve (230) to introduce air into the air springs (242, 244) and the use of a two-way valve (220) to dump air from the air springs to atmosphere. (Col. 7, lines 23-59, Figs. 13-15). The '217 patent further discloses the use of one-way valves to prevent pressurized fluid from passing from the air springs back to the air tank or from the atmosphere into the air springs. This is vesting different from the presently claimed invention in which the air restriction valve is specifically designed to allow flow of air to and from the air springs, but upon activation based upon receipt of the second control signal will effectively cut-off fluid communication between the height control valve and the air springs. In this manner, the height control system is effectively shut-off while the air restriction valve receives the control signal. Alternatively, the '217 patent teaches use of one-way valve that cannot effectively cut-off fluid communication if both directions. Unlike the present system, during normal operation of the vehicle, the height control valve will continually introduce air into and exhaust air from the air springs, which is the exact opposite of what the present application claims to accomplish, namely to minimize air losses in the air suspension control system.

Likewise, the '840 application also fails to teach or disclose a system that will minimize air losses in the air suspension control system. Rather, the '840 application teaches parallel height control valve systems that may be utilized when power is on or power is off when the trailer is either connected to a tractor or disconnected respec-

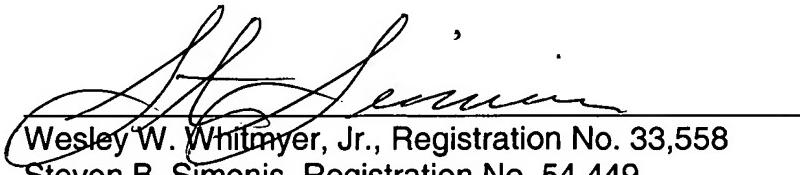
tively. (Col. 4, par. 34). While the '840 application does teach use of shut-off valves, the use of parallel piping always keeps the system activated such that when one conduit branch i.e. branch (5) is shut off, then the other conduit branch (7) is on. (Col. 4, par. 34). The '840 application is not directed to a system for minimizing air losses in a system, but rather for providing redundant height control valving so that the system can always be adjusted, which is again the very opposite to what the present invention accomplishes, namely shutting off of the system to minimize air losses during operation of the system.

Applicant therefore respectfully submits that neither the '217 patent nor the '840 application are directed toward systems for minimizing air losses during the operation of the system and in fact teach away from this concept. Applicant further respectfully submits that because none of the cited prior art teaches, discloses or suggests but in fact teach away from, an air restriction valve fluidly coupled between a height control valve and an air spring, the air restriction valve operable to selectively open and close communication between the height control valve and said air spring, and different control signals for controlling the height control valve and the air restriction valve, such that air losses in the air suspension control system are minimized as required by claims 1 and 14, no combination of the cited references can render these claims obvious. In addition, because none of the cited references teach, disclose or suggest generating a correction signal, generating a control signal that is different from the correction signal and actuating a restriction valve with the control signal to selectively interrupt operation of the height control to increase ride stability of the vehicle as required by claim 8 or generating a first control input, generating a second control input that is based on a different parameter than the first control input, and actuating the air restriction valve according to the second control input in order to prevent loss of pressurized air in the air suspension control system during operation of the vehicle as required by claim 11, no combination of these references can render these claims obvious.

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Response to Official Action

It is respectfully submitted that claims 1-17, all of the claims remaining in the application, are in order for allowance and early notice to that effect is respectfully requested.

Respectfully submitted,



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